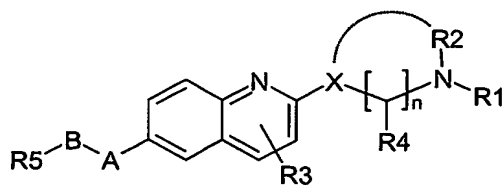


CLAIMS

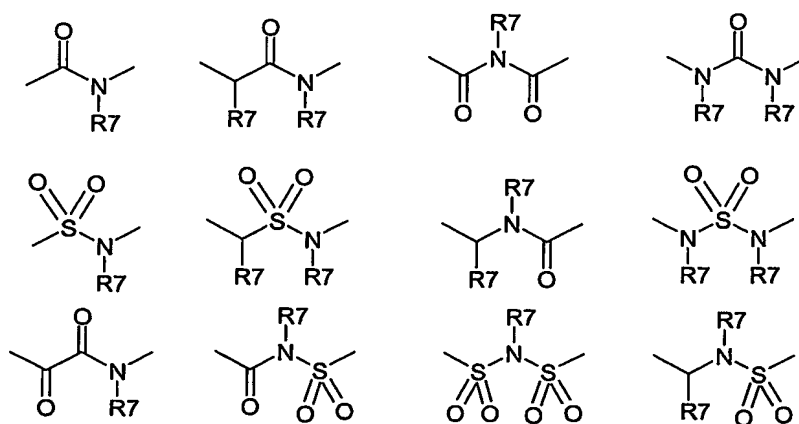
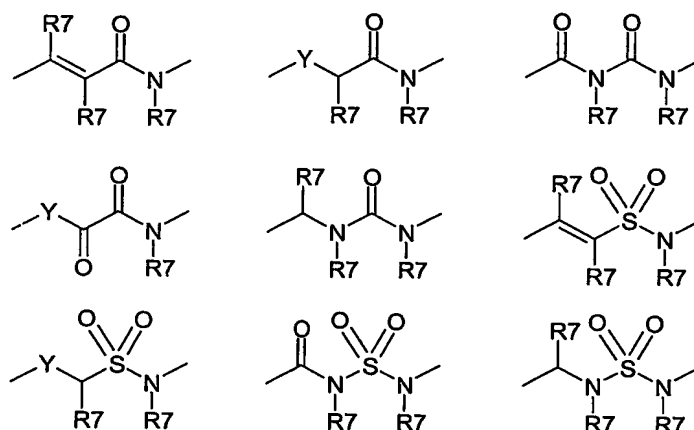
1. Use of a compound with the following structure (Formula 1a)



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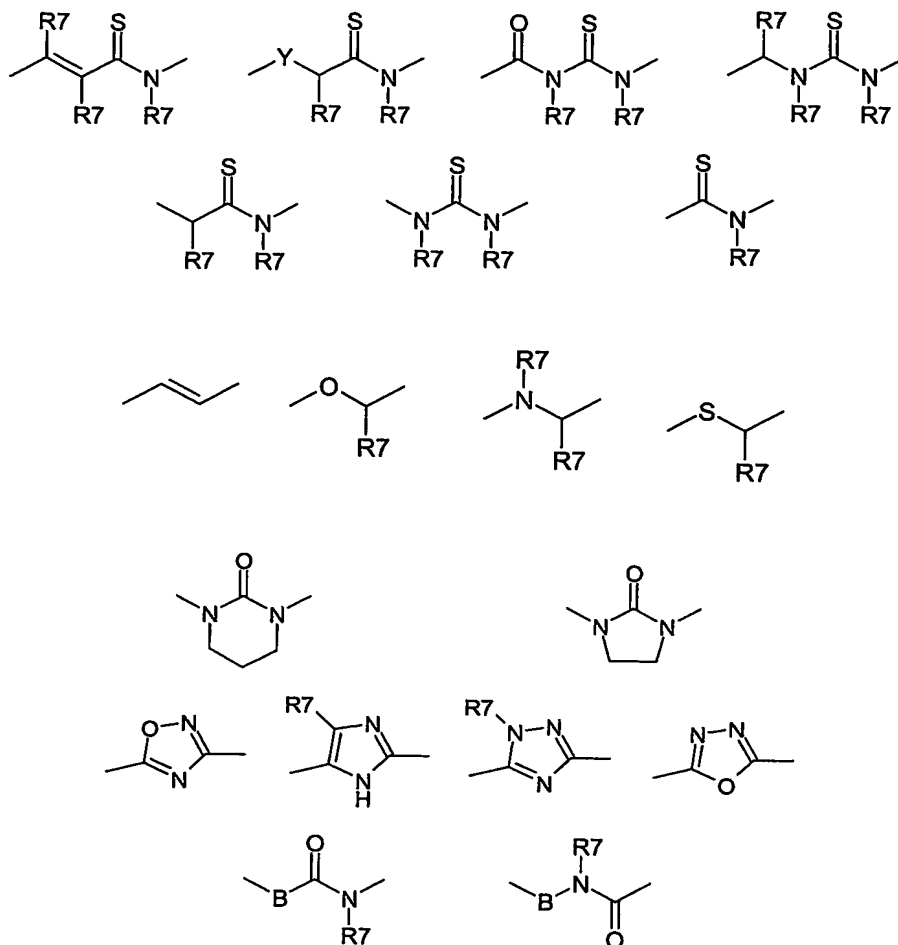
wherein the quinoline moiety may contain more than one nitrogen atom such as, e.g. 2 or 3 nitrogen atoms,

10 and wherein -A- is a linker, which is selected from the group consisting of



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in which B is defined below, and, wherein the linker may be attached via either of the two free bonds to the B group;

10

and Y being CHR₇, O, S, NR₇;

and R₇ is the same or different and is hydrogen or a straight or branched C₁-C₄ alkyl or alkenyl group; R₇ can be linked direct or via hetero atoms to B or the quinoline ring system when chemically feasible;

15

and X being nitrogen, carbon, oxygen or sulphur and X being restricted to nitrogen or carbon when X linked to R₂ as indicated in formula Ia;

20

B is an aryl or heteroaryl group such as, e.g. phenyl, pyridine, pyrimidine, pyrazine, thiophene, oxazole, isothiazole, pyrazole, pyrrole, imidazole, indole, benzimidazole,

quinoline, isoquinoline, furan, benzofuran, benzothiophene, benzothiazole, indazole, thiazole, isoxazole, oxadiazole, indan;

- 5 R1 and R2 are the same or different selected from hydrogen, straight or branched alkyl, alkenyl or alkynyl groups with 1-6 carbon atoms; cycloalkyl groups with 3-7 carbons; alkylcycloalkyl with 4-8 carbons atoms; alkylaryl groups such as benzyl, 2-ethylphenyl, 3-propylphenyl; alkylheteroaryl groups; the alkyl, aryl and heteroaryl groups may be substituted with substituents such as Alk-CONH-, Alk-O-, HO-, NC-, AlkNH-, Alk₂N-, -CONH₂, -CONHAlk, -CONAlk₂, or the aryl and heteroaryl groups fused
10 with moieties such as -O-CH₂-O-, -N=CH-NH-, -O-CH=N-; R2 may be further substituted with one or more R4 groups in any position;

Alk is the same or a different alkyl, alkenyl or alkynyl group;

- 15 R4 is the same or different and is hydrogen or a straight or branched C₁-C₄ alkyl group; and may be substituted with one or two C₁-C₄ alkyl groups;

- R3 may be selected from hydrogen, alkyl, alkenyl or alkynyl groups, halogen atoms, alkoxy groups (AlkO-), hydroxy, alkylamino groups (AlkNH-), dialkylamino groups
20 (Alk₂N-), hydroxylalkyl groups, carboxamido groups (-CONH₂, -CONHAlk, -CONAlk₂), acylamido groups (-NHCO-Alk), acyl groups (-CO-Alk), -CHO, nitrile, -SCH₃, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as -CH₂CF₃, -CF₂CF₃, -CF₃, -OCF₃, -SCF₃; -SO₂NH₂, -SO₂NHAlk, -SO₂NAlk₂, -SO₂Alk;

- 25 R1, R2, R3 or R4 may optionally be linked to each other, or to the carbon chain linking the two nitrogen atoms, when possible; and O or NR1 may be inserted in the chain or ring in a chemically stable position; R4 may optionally be linked to X;

- R5 is hydrogen, halogen atoms, alkyl, alkenyl or alkynyl groups, cycloalkyl groups with
30 3-7 carbons, aryl groups (Ar), heteroaryl groups, heterocyclyl groups, alkylcycloalkyl groups, alkylaryl groups, alkylheterocyclyl groups, alkylheteroaryl groups, arylalkoxy groups (e.g. ArCH₂O-), aryloxy groups (ArO-), arylamino groups (Ar-NR₇-, ArNH-), arylalkylamino groups (ArAlkNH-, ArAlkNR₇-, ArCH₂NR₇-, ArCH₂NH-), alkoxy groups (AlkO-), alkylamino groups (AlkNH-), dialkylamino groups (Alk₂N-), -CONH₂, -
35 CONHAlk, -CONHAr -CONAlk₂, -NHCO-Alk, -NHCO-Ar, -CO-Alk, -CO-Ar, -CF₂-Ar, -

$N(CF_3)_2$, $-SCH_3$, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as $-CH_2CF_3$, $-CF_2CF_3$, $-CF_3$, $-OCF_3$, $-SCF_3$;

optionally, one or more R_5 may be present on B; and

5

n is 0, 1, 2 or 3 with the proviso that

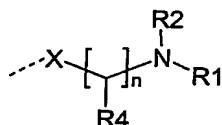
when n is 0 or 1 then X is C and

when n is 2 or 3, then X is C, O, S or N

10 for the preparation of a pharmaceutical composition for the treatment, prophylaxis and/or diagnosis of a condition caused by or involving a melanin-concentration hormone.

2. Use according to claim 1, wherein the nitrogen-containing chain has the structure:

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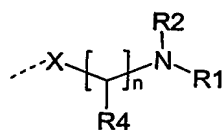


wherein X , R_1 , R_2 , R_4 and n are as defined in claim 1.

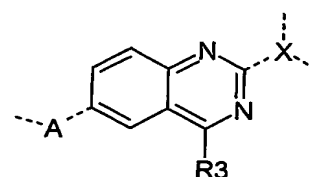
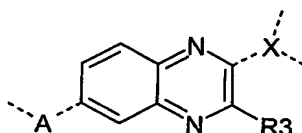
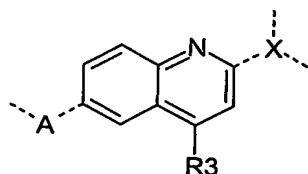
3. Use according to any of the preceding claims, wherein the nitrogen-containing chain

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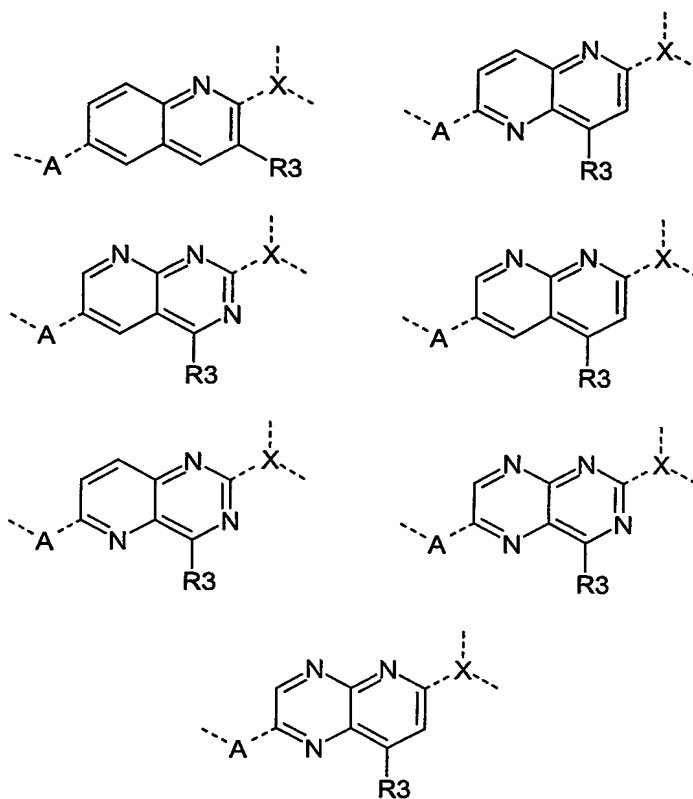
has the structure:



and the quinoline moiety has one of the following structures:



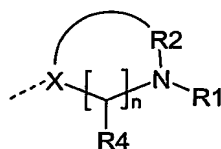
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wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

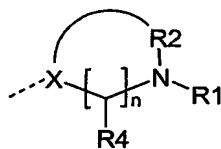
4. Use according to claim 1, wherein the nitrogen-containing chain has the structure:



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wherein X, R1, R2, R4 and n are as defined in claim 1.

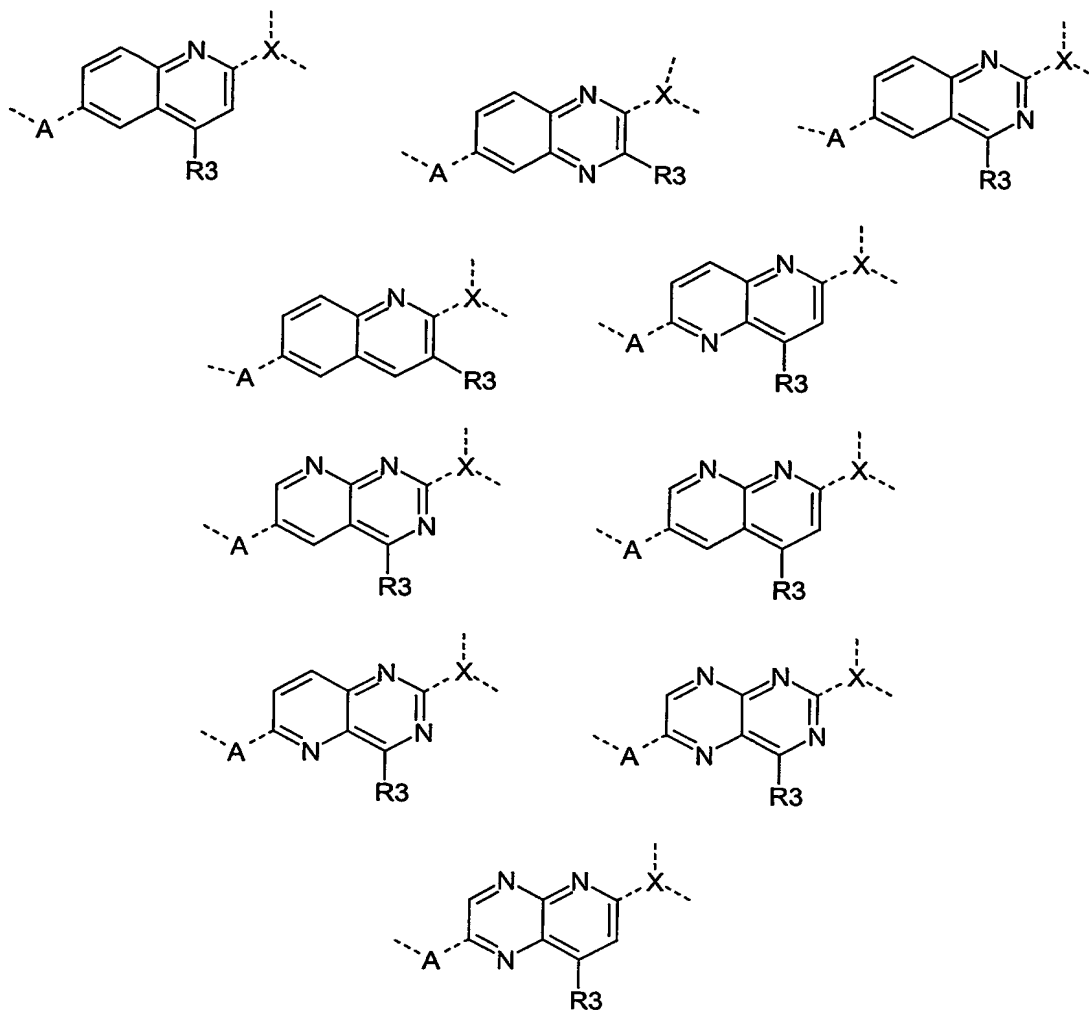
5. Use according to claim 4, wherein the nitrogen-containing chain has the structure:



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and the quinoline moiety has one of the following structures:

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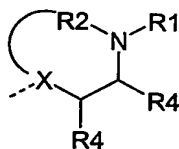


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wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

6. Use according to claims 1 or 4, wherein the nitrogen-containing chain has the structure:

10

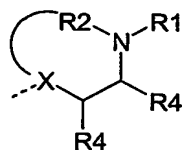


wherein X, R1, R2 and R4 are as defined in claim 1.

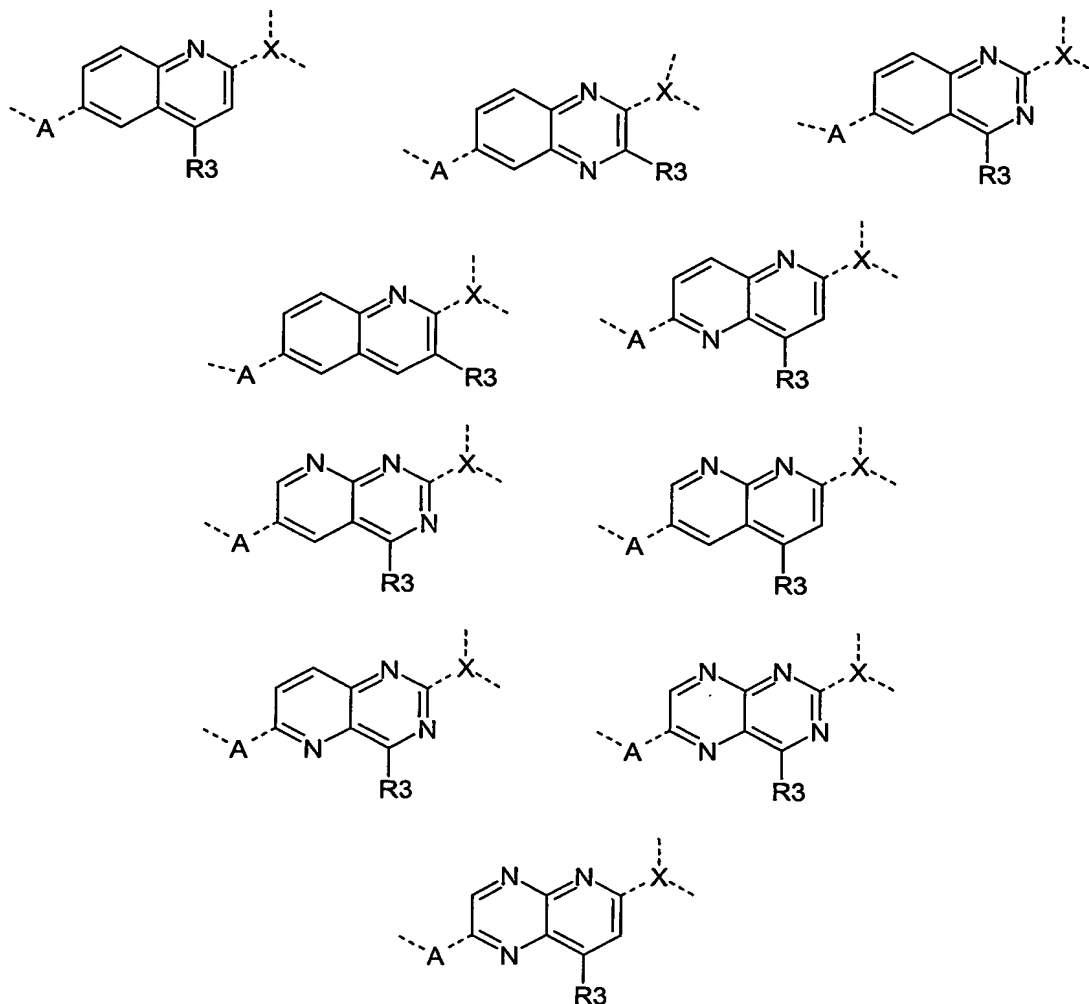
7. Use according to claim 6, wherein the nitrogen-containing chain has the structure:

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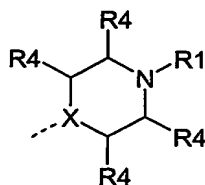


and the quinoline moiety has one of the following structures:



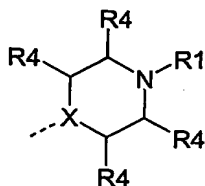
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

8. Use according to claim 6, wherein the nitrogen-containing chain has the structure:

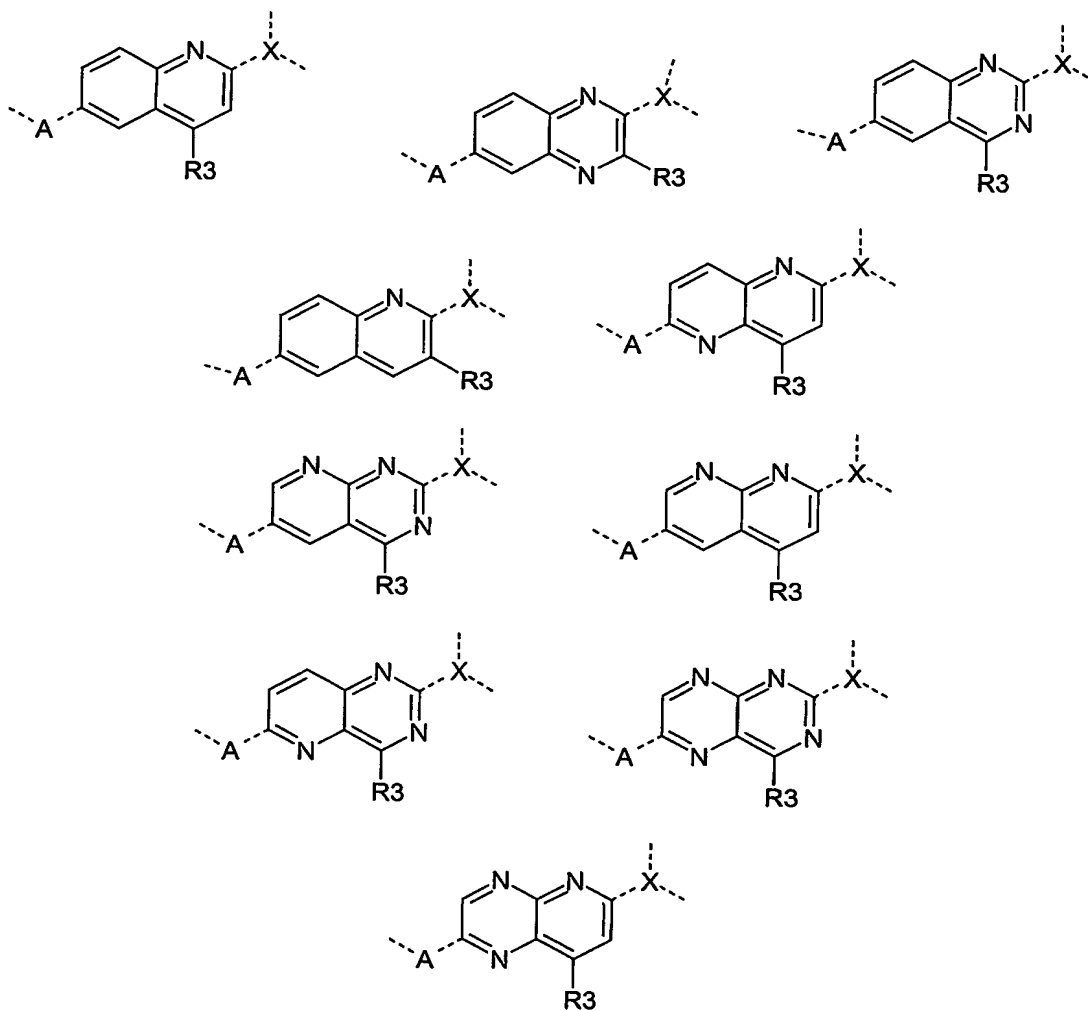


wherein X, R1 and R4 are as defined in claim 1.

9. Use according to claim 8, wherein the nitrogen-containing chain has the structure:

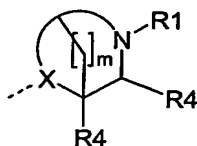


5 and the quinoline moiety has one of the following structures:



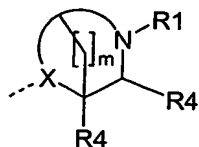
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

10. Use according to claim 1, wherein the nitrogen-containing chain has the structure:

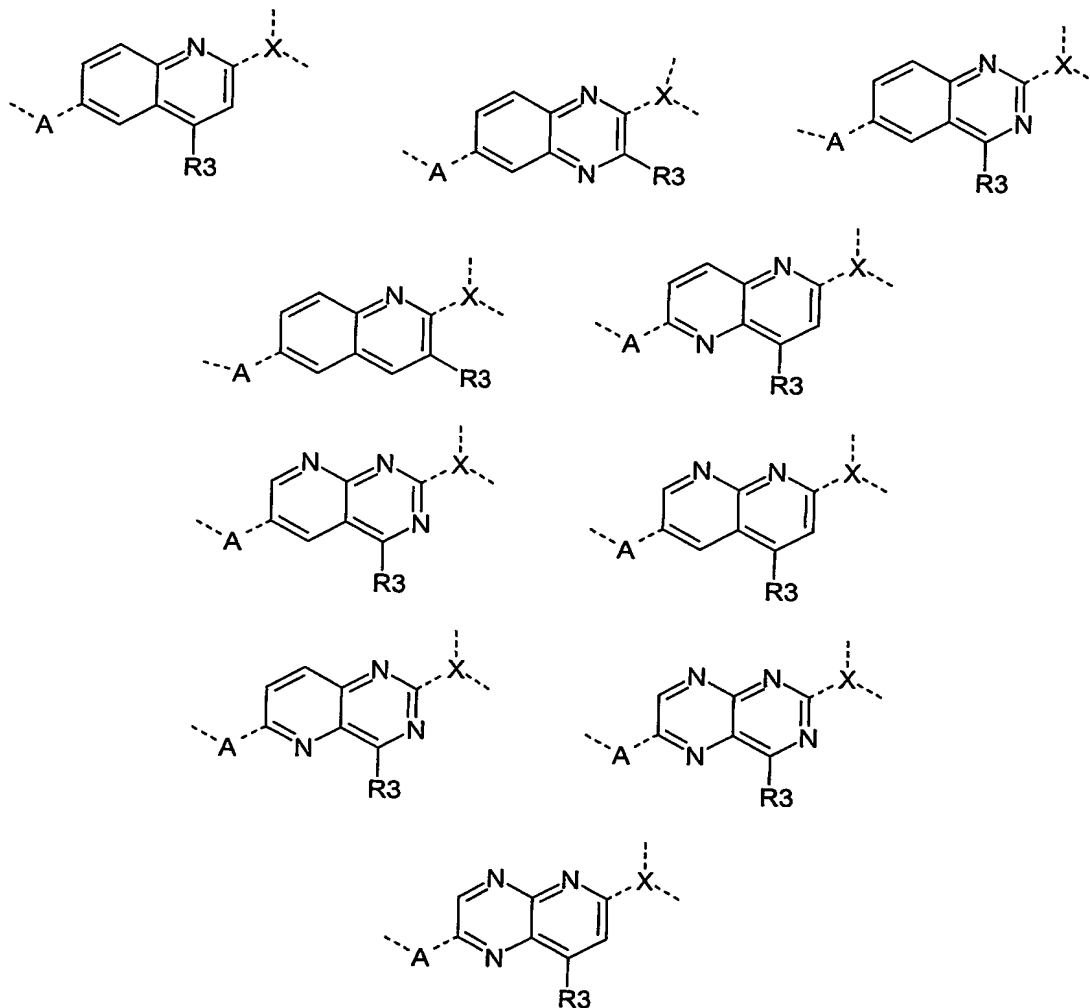


wherein X, R1 and R4 are as defined in claim 1 and m is 1 or 2.

11. Use according to claim 10, wherein the nitrogen-containing chain has the structure:



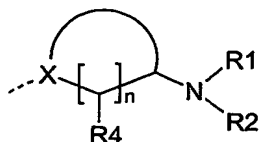
and the quinoline moiety has one of the following structures:



wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1, and m is 1 or 2.

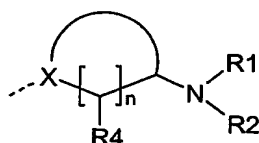
12. Use according to claim 1, wherein the nitrogen-containing chain has the structure:

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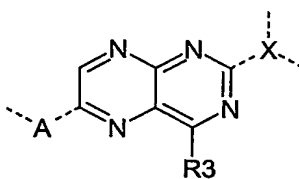
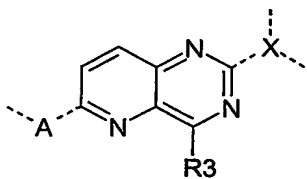
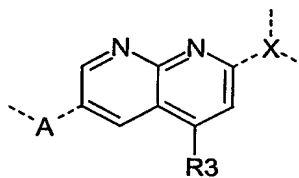
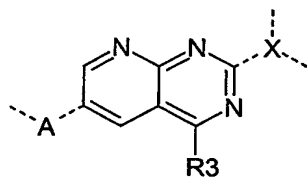
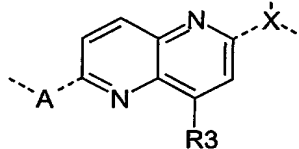
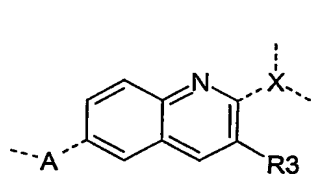
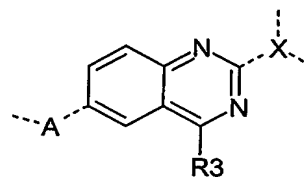
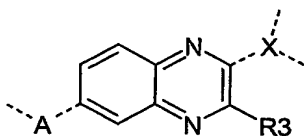
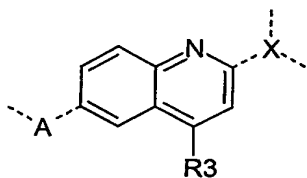
wherein X, R1, R2, R4 and n are as defined in claim 1.

13. Use according to claim 12, wherein the nitrogen-containing chain has the structure:

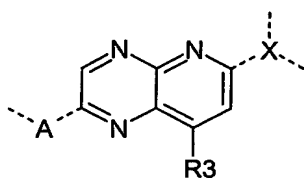


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and the quinoline moiety has one of the following structures:



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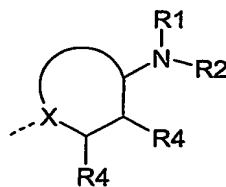


wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

14. Use according to any of claims 12-13, wherein the nitrogen-containing chain has the structure:

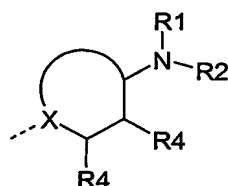
15

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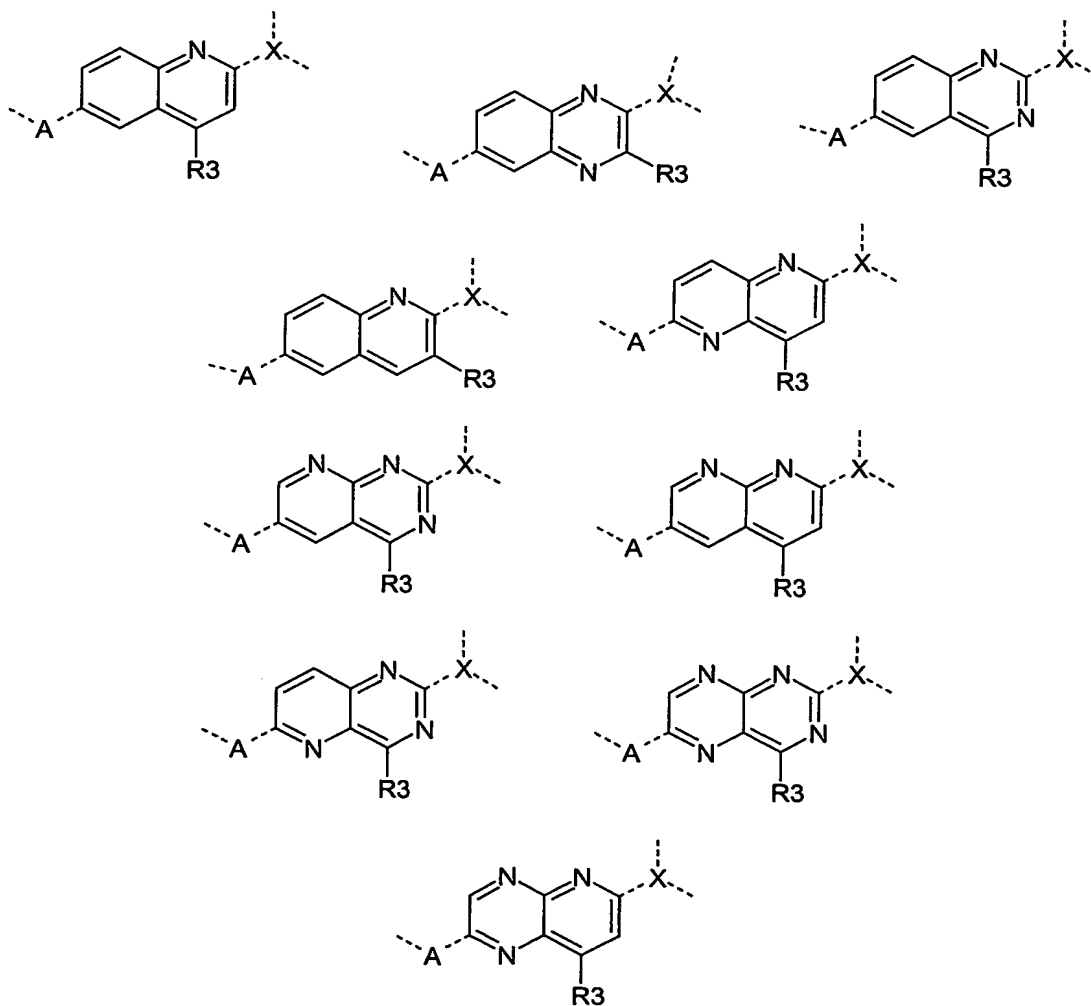


wherein X, R1, R2 and R4 are as defined in claim 1.

15. Use according to any of claims 12-14, wherein the nitrogen-containing chain has
5 the structure:

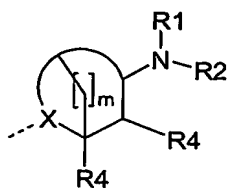


and the quinoline moiety has one of the following structures:



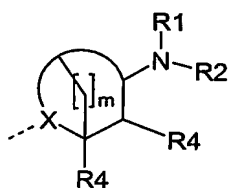
wherein A, B, R₁, R₂, R₃, R₄, R₅, R₇, Y, X and n are as defined in claim 1.

16. Use according to claim 12, wherein the nitrogen-containing chain has the structure:



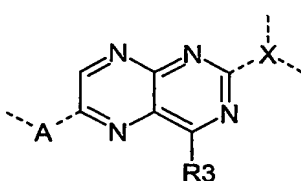
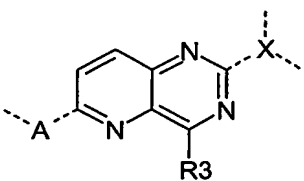
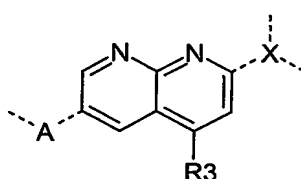
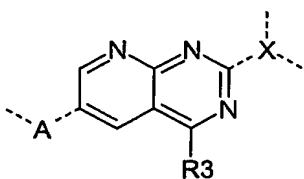
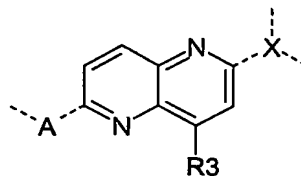
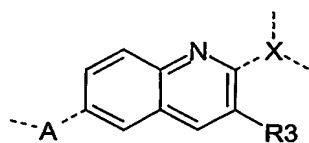
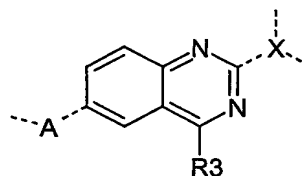
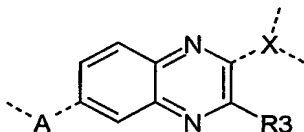
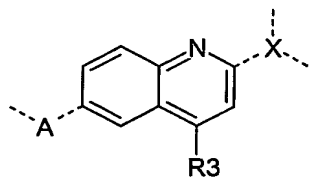
5 wherein X, R₁, R₂ and R₄ are as defined in claim 1 and m is 1 or 2.

17. Use according to claim 12, wherein the nitrogen-containing chain has the structure:

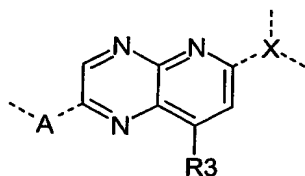


and the quinoline moiety has one of the following structures:

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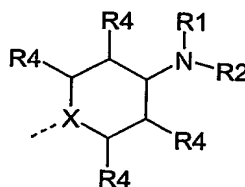


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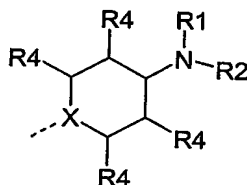
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1 and m is 1 or 2.

- 5 18. Use according to claim 12, wherein the nitrogen-containing chain has the structure:



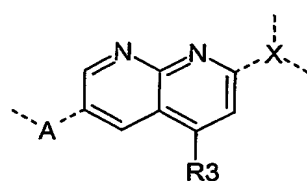
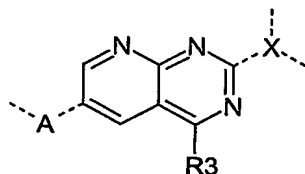
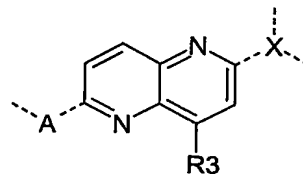
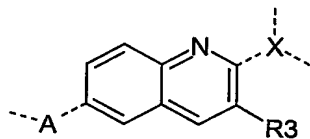
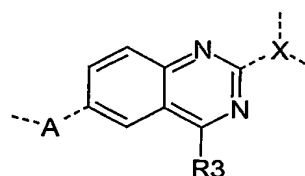
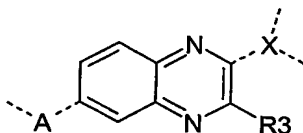
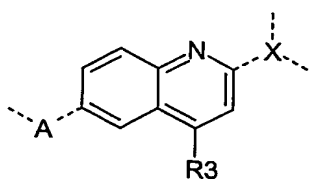
wherein X, R1, R2 and R4 are as defined in claim 1.

19. Use according to claim 12, wherein the nitrogen-containing chain has the structure:

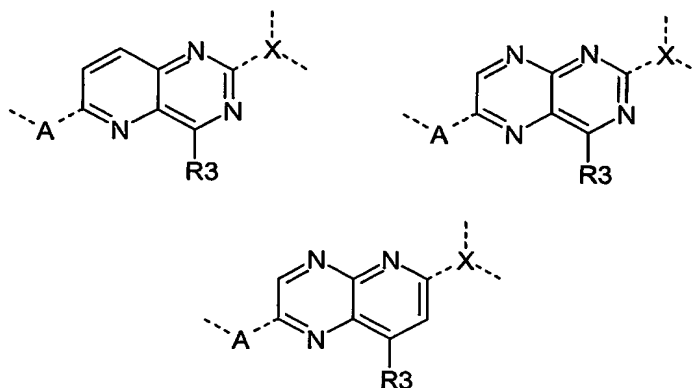


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and the quinoline moiety has one of the following structures:

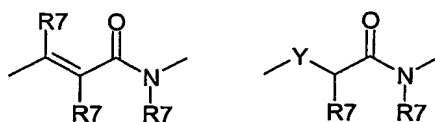


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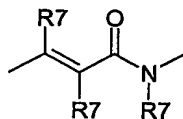


wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

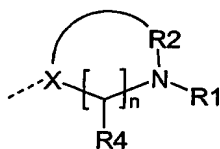
- 5 20. Use according to any of the preceding claims, wherein A is selected from the group consisting of:



- 10 21. Use according to claim 20, wherein A has the structure

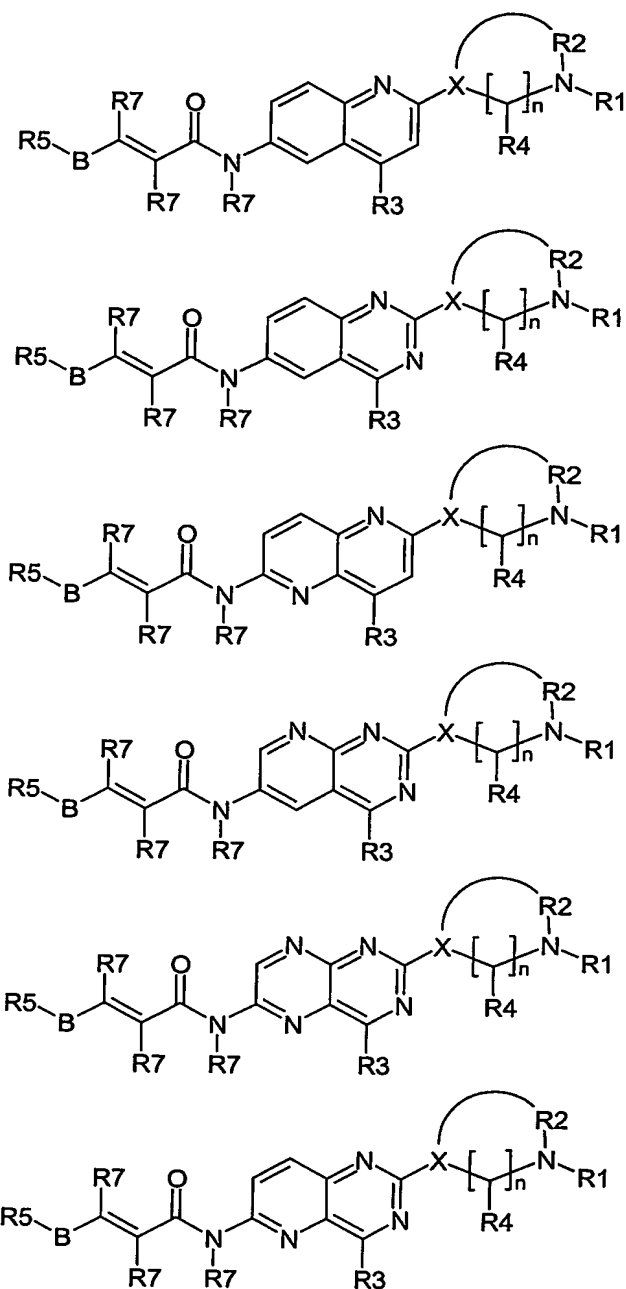


and the nitrogen-containing chain has the structure:



- 15 wherein B, R1, R2, R3, R4, R5, R7, X and n are as defined in claim 1.

22. Use according to claim 21, wherein the compound has one of the following structures:

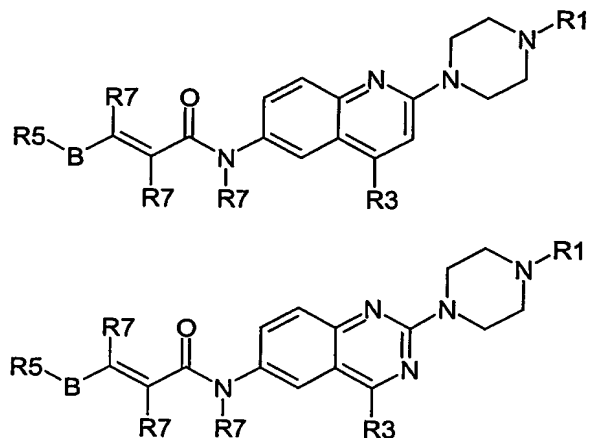


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wherein B, R₁, R₂, R₃, R₄, R₅, R₇, X and n are as defined in claim 1.

- 10 23. Use according to claim 22, wherein the compound has one of the following structures:

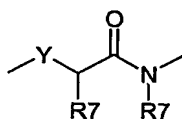
185



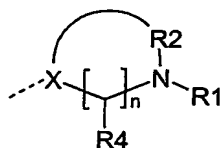
wherein B, R1, R2, R3, R4, R5 and R7 are as defined in claim 1.

5

24. Use according to claim 1, wherein A has the structure

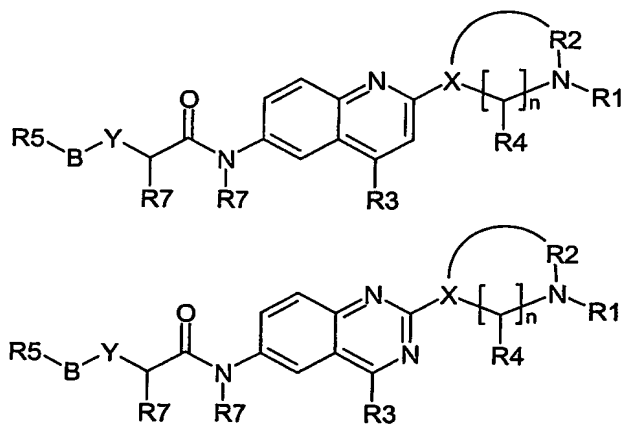


and the nitrogen-containing chain has the structure:



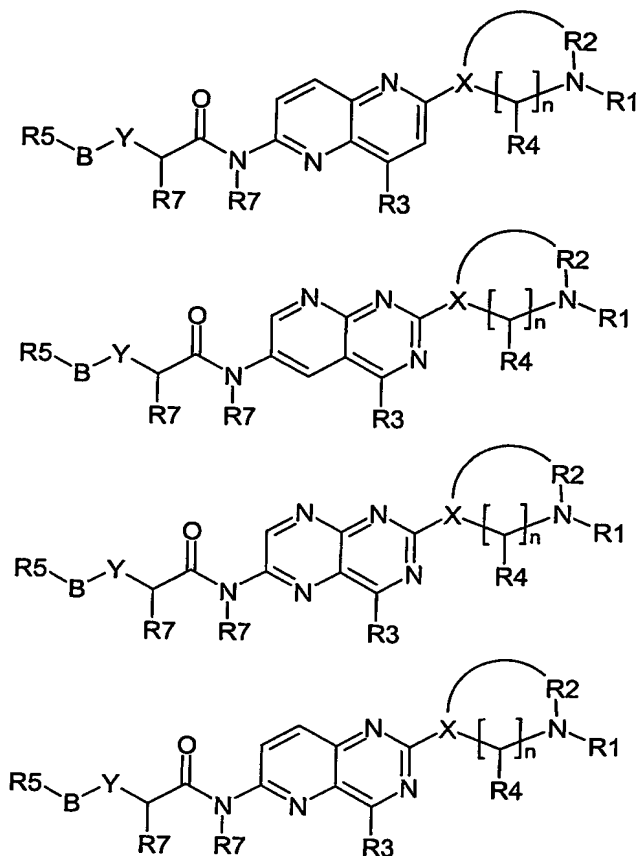
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25. Use according to claim 24 wherein the compound has one of the following structures:



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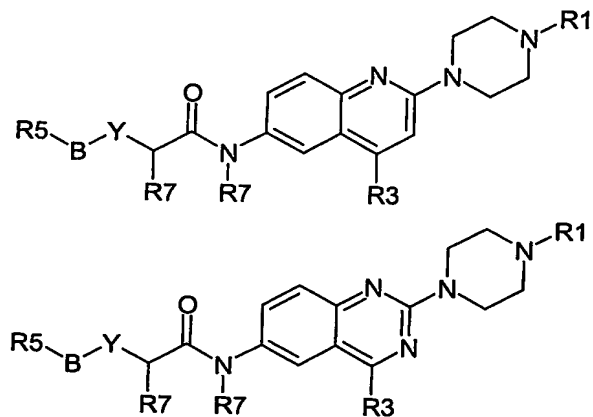
186



5

wherein B, R₁, R₂, R₃, R₄, R₅, R₇, Y, X and n are as defined in claim 1.

26. Use according to claim 25, wherein the compound has one of the following structures:

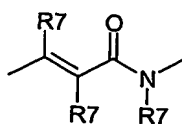


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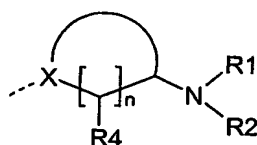
wherein B, R₁, R₂, R₃, R₄, R₅, Y and R₇ are as defined in claim 1.

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27. Use according to claim 1, wherein A has the structure

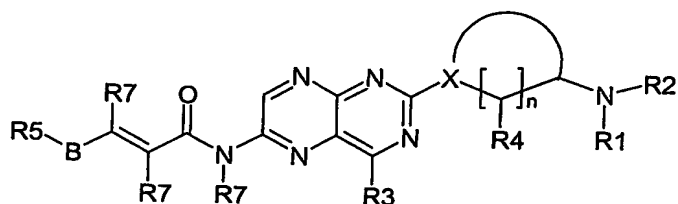
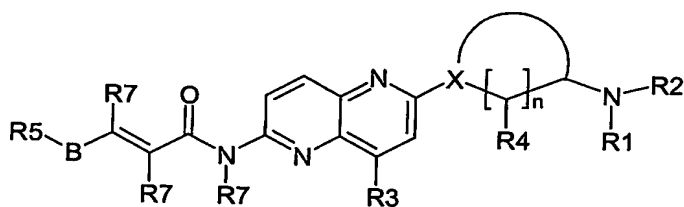
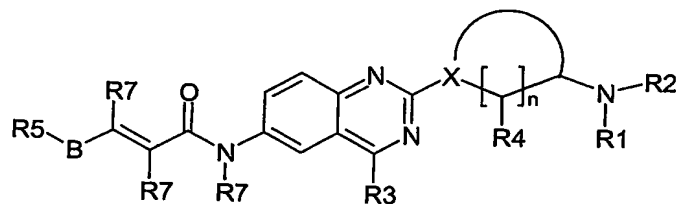
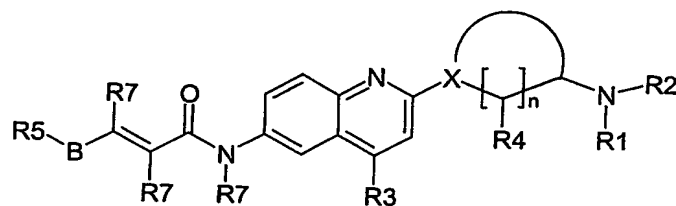


and the nitrogen-containing chain has the structure:



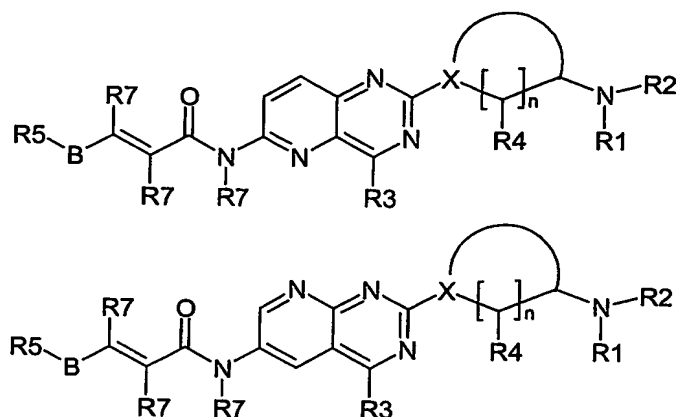
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28. Use according to claim 27, wherein the compound has one of the following structures:



10

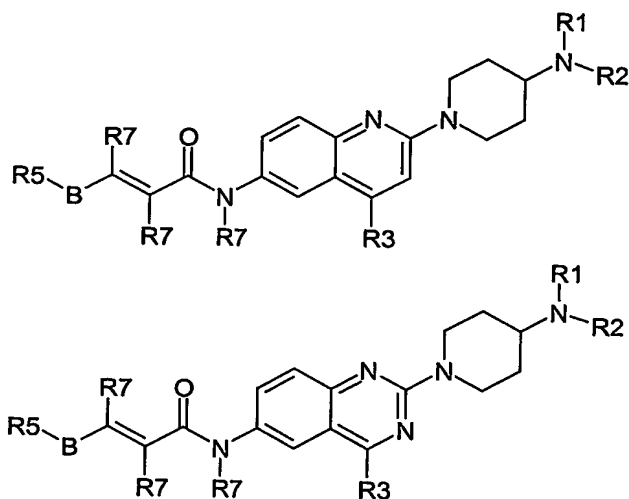
188



wherein B, R1, R2, R3, R4, R5, R7, X and n are as defined in claim 1.

5

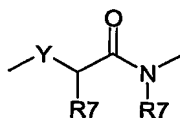
29. Use according to claim 28, wherein the compound has one of the following structures:



10

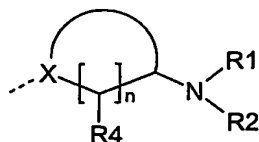
wherein B, R1, R2, R3, R4, R5 and R7 are as defined in claim 1.

30. Use according to claim 1, wherein A has the structure

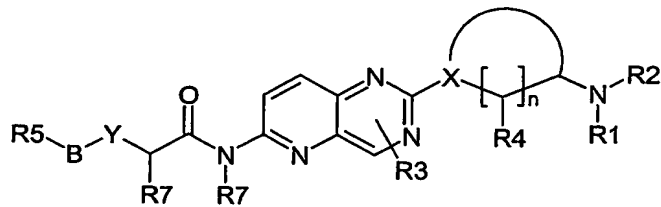
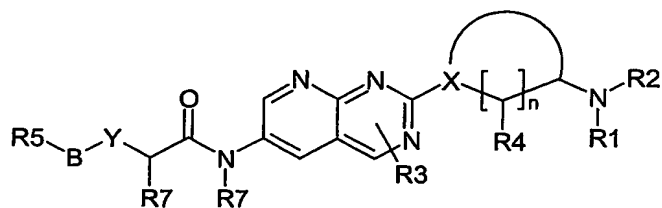
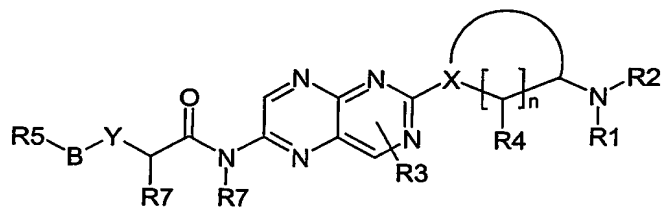
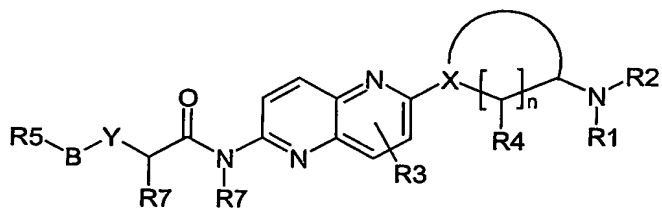
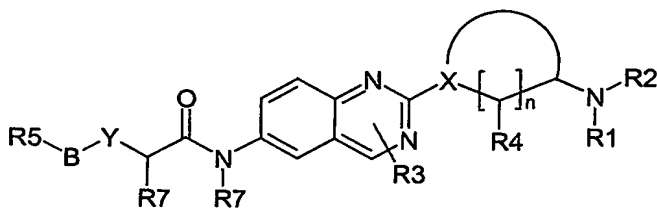
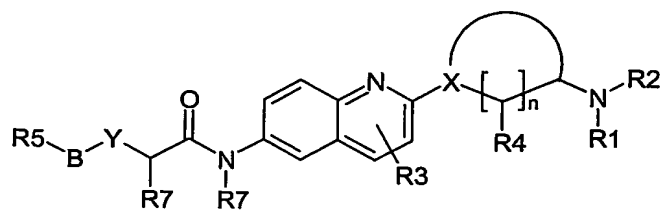


15 and the nitrogen-containing chain has the structure:

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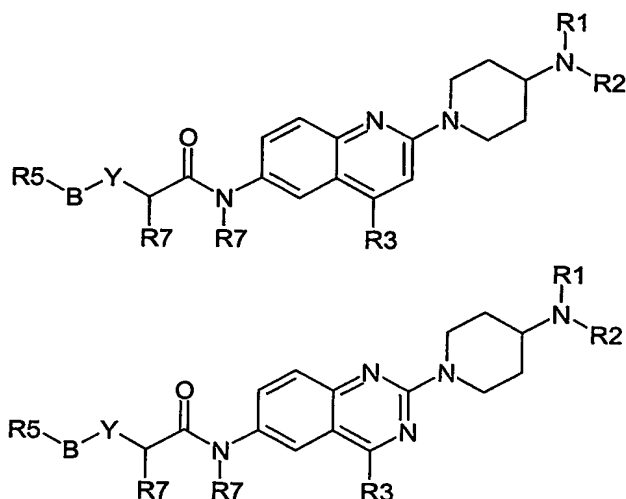


31. Use according to claim 30, wherein the compound has one of the following structures:



wherein B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

32. Use according to claim 31, wherein the compound has one of the following structures:



wherein B, R1, R2, R3, R4, R5, R7 and Y are as defined in claim 1.

33. Use according to any of the preceding claims, wherein X is N.

34. Use according to any of the preceding claims, wherein R3 is methyl.

35. Use according to any of the preceding claims, wherein R7 is hydrogen.

36. Use according to any of the preceding claims, wherein R4 is hydrogen

37. Use according to any of the preceding claims, wherein R1 is hydrogen or a lower straight, branched or cyclic alkyl group with 1-6 carbon atoms such as, e.g., methyl, ethyl, propyl, butyl, isopropyl, isobutyl, cyclopentyl, which may be substituted with OH.

38. Use according to claim 37, wherein R1 is hydrogen, methyl, ethyl, propyl, isopropyl, butyl, iso-butyl, sec-butyl, tert-butyl or 2-hydroxyethyl.

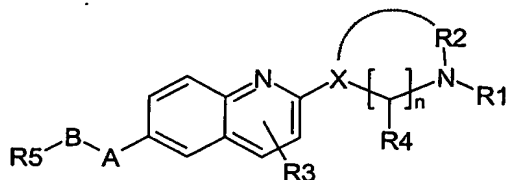
39. Use according to claim 38, wherein R1 is methyl, ethyl or 2-hydroxyethyl.

40. Use according to any of the preceding claims, wherein Y is oxygen.

41. Use according to any of the preceding claims, wherein B is phenyl or pyridine.
42. Use according to any of the preceding claims, wherein R5 is halogen atoms, alkyl or alkenyl groups, cycloalkyl groups with 3-7 carbons, heterocyclyl groups, alkylcycloalkyl groups, alkoxy groups (AlkO-), alkylamino groups (AlkNH-), dialkylamino groups (Alk₂N-), -CONHAlk, -CONAlk₂, -NHCO-Alk, -CO-Alk, -N(CF₃)₂, -SCH₃, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as -CH₂CF₃, -CF₂CF₃, -CF₃, -OCF₃, -SCF₃.
43. Use according to claim 42, wherein R5 is halogen atoms, alkyl groups, -SCH₃, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as -CH₂CF₃, -CF₂CF₃, -CF₃, -OCF₃, -SCF₃.
44. Use according to any of the preceding claims, wherein the compound is in amorphous or crystalline form.
45. Use according to any of the preceding claims, wherein the compound is in racemic or enantiomeric form.
46. Use according to any of the preceding claims, wherein the compound is in the form of a physiologically acceptable salt, complex, solvate or prodrug thereof.
47. Use according to any the preceding claims for the preparation of a composition for preventing or treating diseases caused by or involving a melanin-concentrating hormone.
48. Use according to any of the preceding claims for the preparation of a composition for modulating the activity of a MCH receptor.
49. Use according to any of the preceding claims for the preparation of a composition that has antagonistic activity against a MCH receptor.
50. Use according to any claims 1-48 for the preparation of a composition that has agonistic, inverse agonistic or allosteric activity against a MCH receptor.

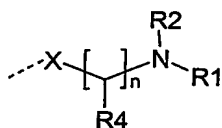
51. Use according to any of the preceding claims, wherein the MCH receptor has at least about 80% such as, e.g. at least about 85% or at least about 90% homology to the amino acid sequence CTLITAMDAN or CTIITSLDTC
- 5 52. Use according to any of the preceding claims, wherein the MCH receptor comprises the amino acid sequence CTLITAMDAN or CTIITSLDTC.
53. Use according to any of the preceding claims, wherein the MCH receptor is a MCH1 or MCH2 receptor.
- 10 54. Use according to any of the preceding claims, wherein the MCH receptor is a MCH1 receptor.
55. Use according to any of the preceding claims, wherein the MCH receptor is a mammalian receptor such as human receptor.
- 15 56. Use according to any of the preceding claims for the preparation of a composition for preventing or treating feeding disorders.
- 20 57. Use according to any of claims 1-48 or 50-56 for the preparation of a composition for reducing body mass.
58. Use according to any of claims 1-48 or 50-57 for the preparation of a composition for preventing or treating Syndrome X (metabolic syndrome), or any combination of
- 25 obesity, insulin resistance, dyslipidemia, impaired glucose tolerance and hypertension.
59. Use according to any of claims 1-48 or 50-58 for the preparation of a composition for preventing or treating Type II diabetes or Non Insulin Dependent Diabetes Mellitus (NIDDM).
- 30 60. Use according to any of claims 1-48 or 50-59 for the preparation of a composition for preventing or treating bulimia, obesity and/or bulimia nervosa.
61. Use according to any of claims 1-60, for the preparation of a composition which is
- 35 an antidepressant and/or anti-anxiety agent.

62. A compound with the following structure (Formula 2a)



- 5 wherein the quinoline moiety contains more than one nitrogen atom such as, e.g. 2 or 3 nitrogen atoms, and X, Y, R7, R5, B, A, R6, R3, R4, R2 and R1 are as defined in claim 1.

63. A compound according to claim 62, wherein the nitrogen-containing chain has the structure:

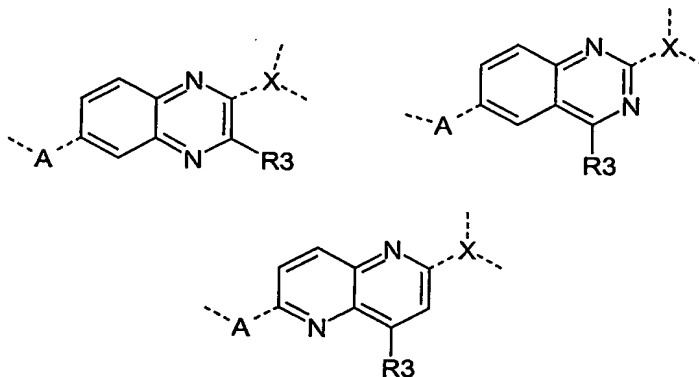


wherein X, R1, R2, R4 and n are as defined in claim 1.

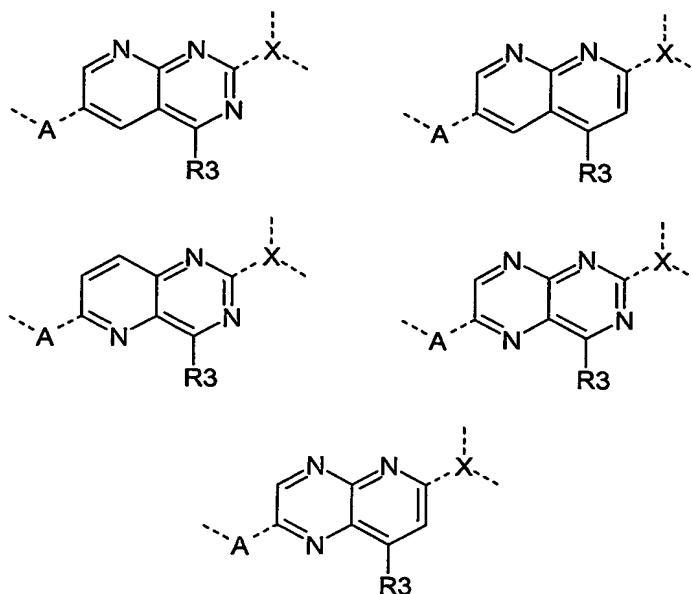
64. A compound according to claim 63, wherein the nitrogen-containing chain has the structure:



and the quinoline moiety has one of the following structures:

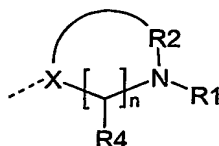


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5 wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

65. A compound according to claim 62, wherein the nitrogen-containing chain has the structure:

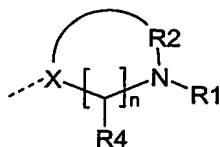


10

wherein X, R1, R2, R4 and n are as defined in claim 1.

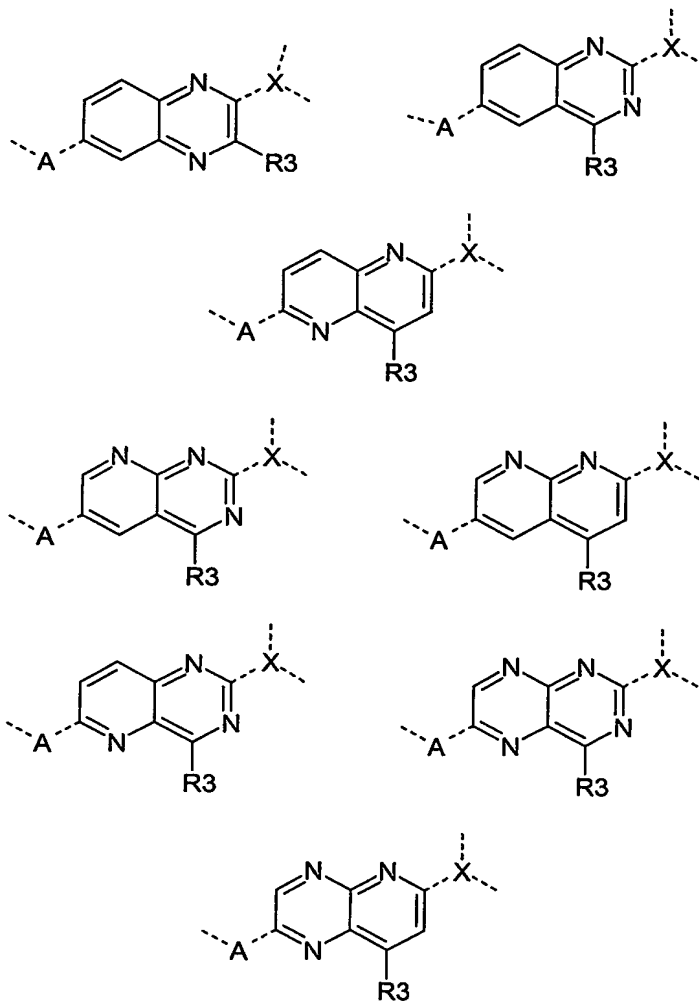
66. A compound according to claim 65, wherein the nitrogen-containing chain has the structure:

15



and the quinoline moiety has one of the following structures:

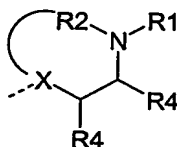
195



5

wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

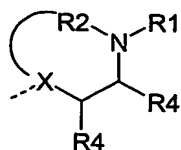
67. A compound according to any of claims 65-66, wherein the nitrogen-containing
10 chain has the structure:



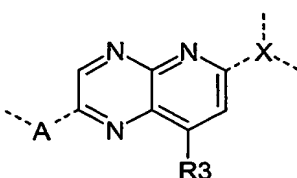
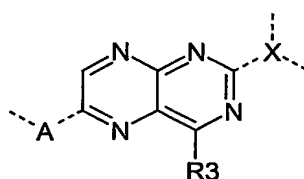
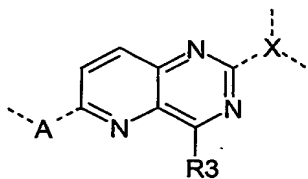
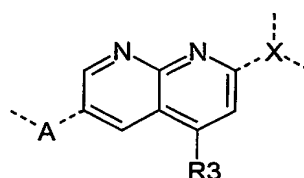
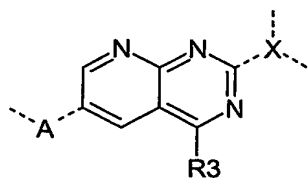
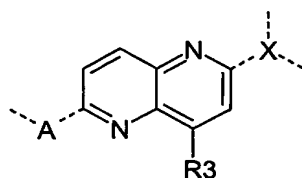
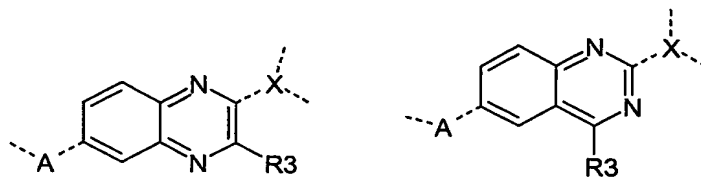
wherein X, R1, R2 and R4 are as defined in claim 1.

68. A compound according to claim 67, wherein the nitrogen-containing chain has the
15 structure:

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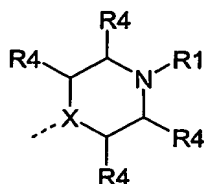


and the quinoline moiety has one of the following structures:



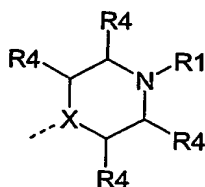
10 wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

69. A compound according to any of claims 65-68, wherein the nitrogen-containing chain has the structure:

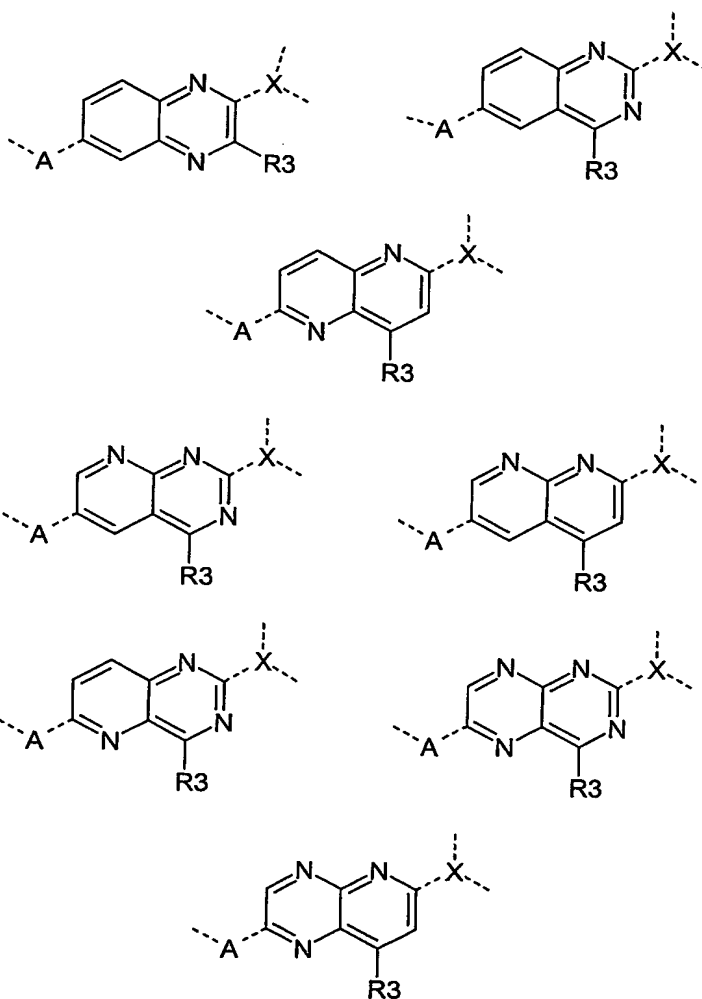


wherein X, R1 and R4 are as defined in claim 1.

70. A compound according to claim 69, wherein the nitrogen-containing chain has the structure:

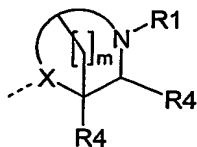


and the quinoline moiety has one of the following structures:



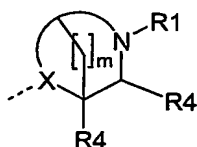
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

71. A compound according to claim 62, wherein the nitrogen-containing chain has the structure:

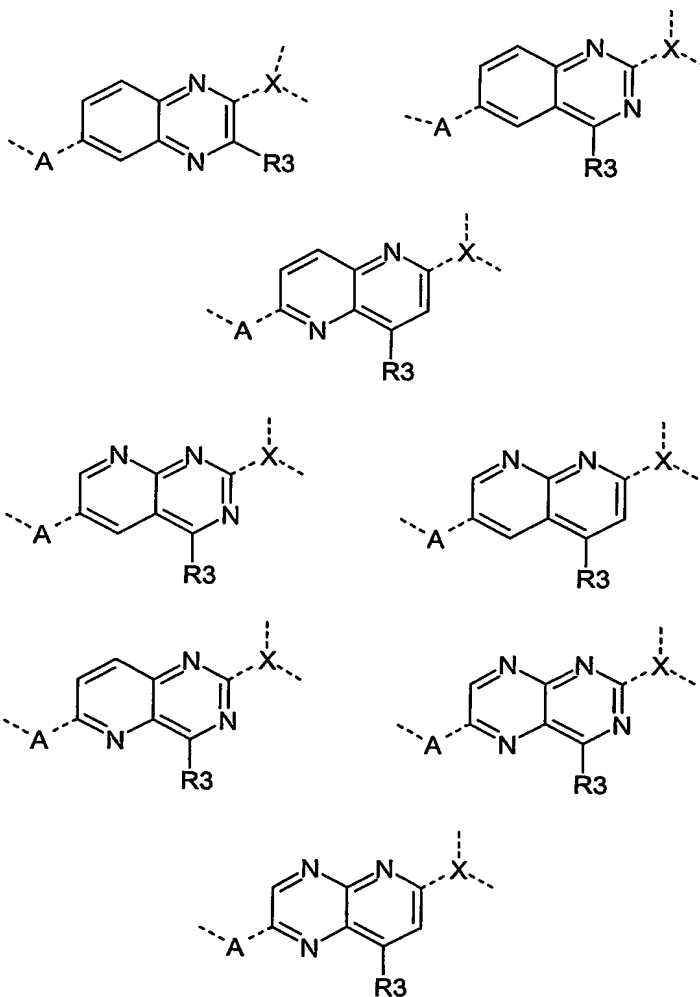


5 wherein X, R1 and R4 are as defined in claim 1 and m is 1 or 2.

72. A compound according to claim 71, wherein the nitrogen-containing chain has the structure:

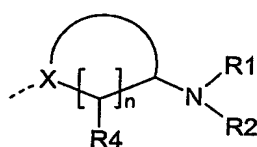


10 and the quinoline moiety has one of the following structures:



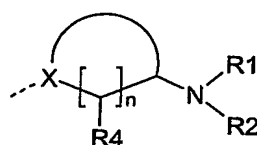
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1 and m is 1 or 2.

- 5 73. A compound according to claim 62, wherein the nitrogen-containing chain has the structure:

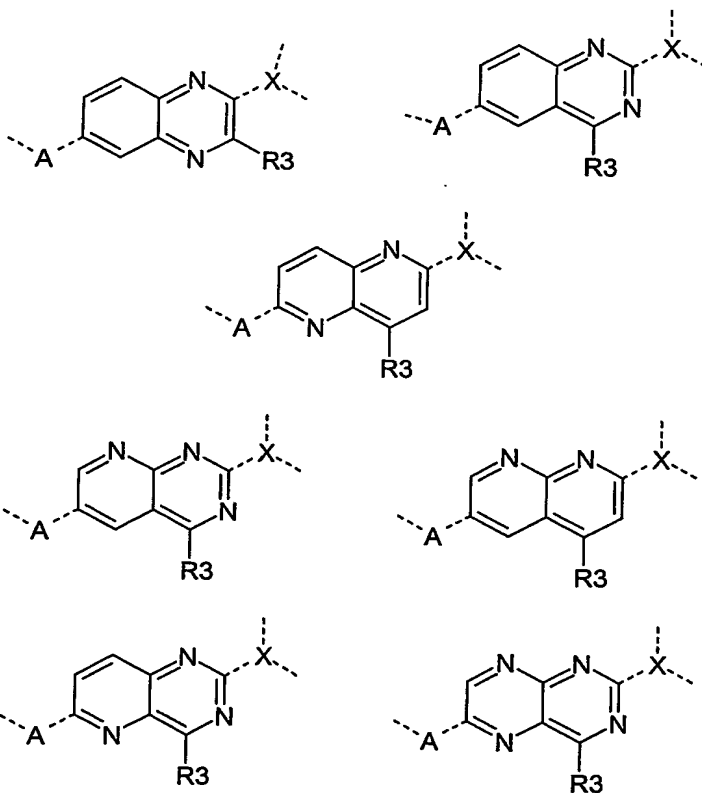


wherein R1, R2, R4, X and n are as defined in claim 1.

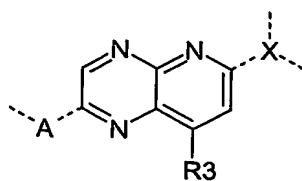
- 10 74. A compound according to claim 73, wherein the nitrogen-containing chain has the structure:



and the quinoline moiety has one of the following structures:

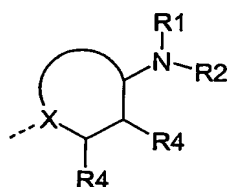


200



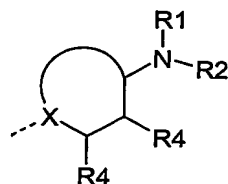
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

75. A compound according to any of claims 73-74, wherein the nitrogen-containing
5 chain has the structure:

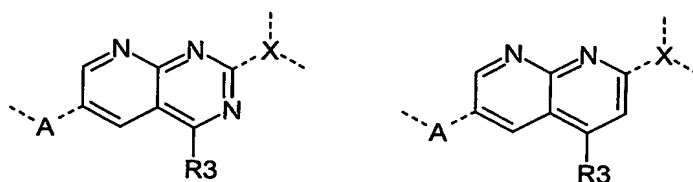
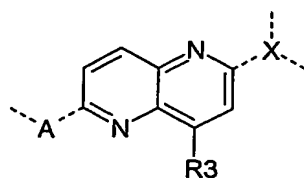
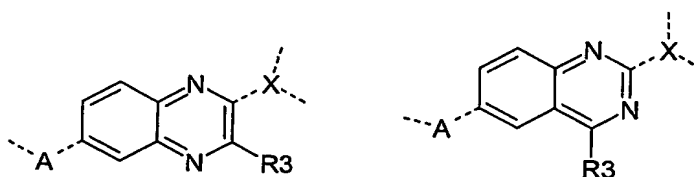


wherein X, R1, R2 and R4 are as defined in claim 1.

76. A compound according to any of claims 73-74, wherein the nitrogen-containing
10 chain has the structure:

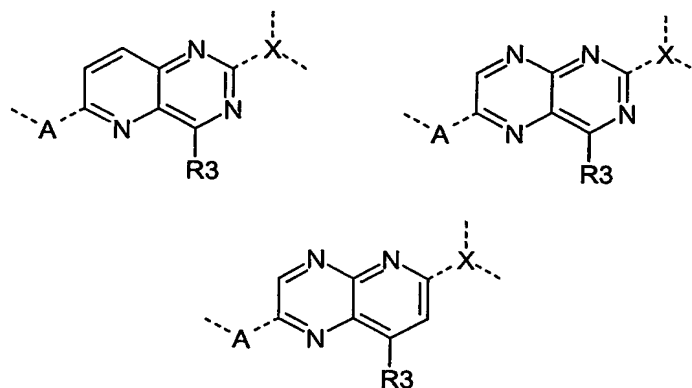


and the quinoline moiety has one of the following structures:



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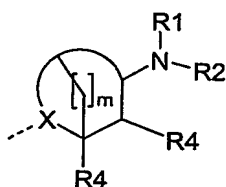
201



wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

5

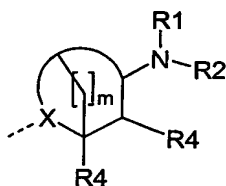
77. A compound according to claim 62, wherein the nitrogen-containing chain has the structure:



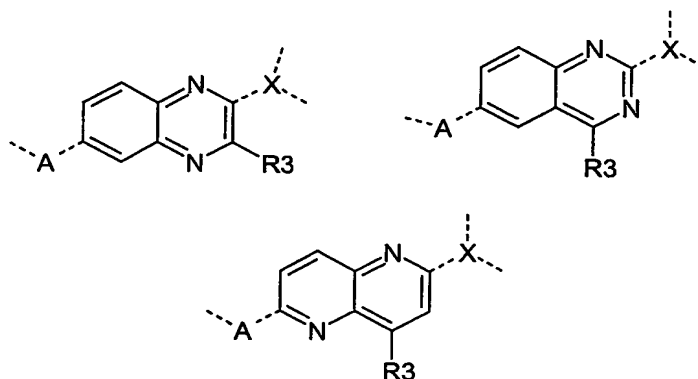
wherein X, R1, R2 and R4 are as defined in claim 1 and m is 1 or 2.

10

78. A compound according to claim 77, wherein the nitrogen-containing chain has the structure:

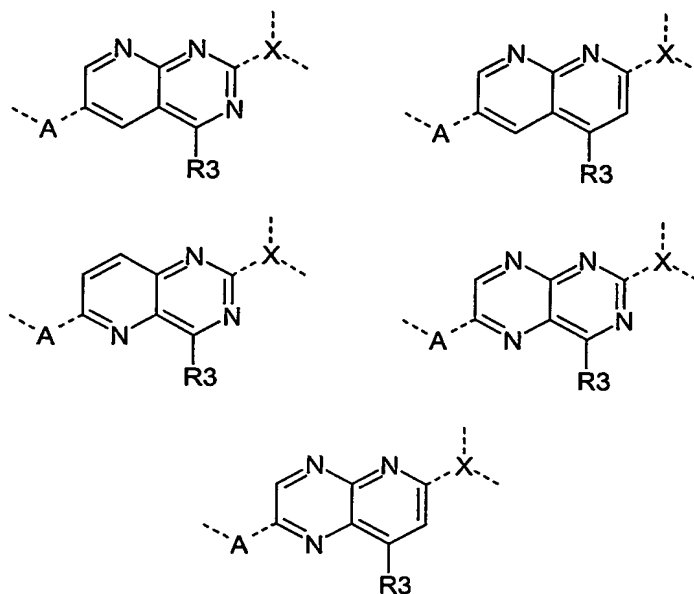


and the quinoline moiety has one of the following structures:



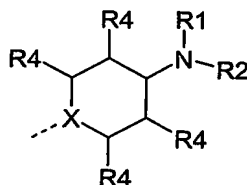
15

202



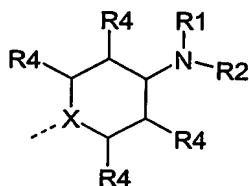
wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1 and m is 1 or 2.

79. A compound according to any of claims 73-78, wherein the nitrogen-containing chain has the structure:



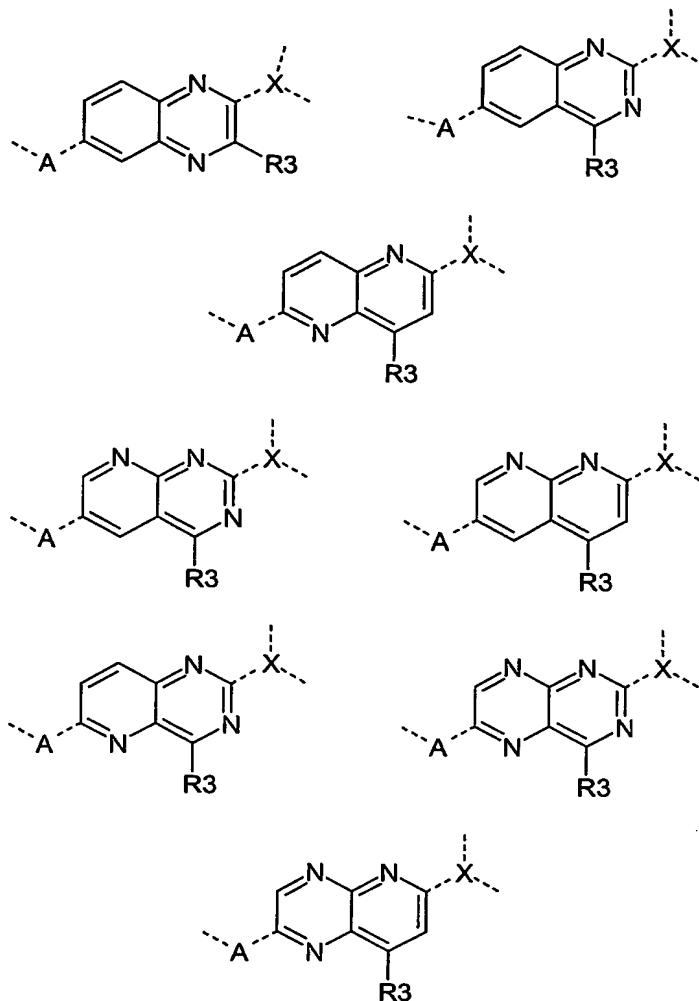
wherein X, R1, R2 and R4 are as defined in claim 1.

80. A compound according to any of claims 73-79, wherein the nitrogen-containing chain has the structure:



and the quinoline moiety has one of the following structures:

203

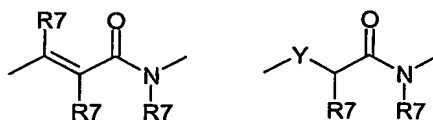


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wherein A, B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

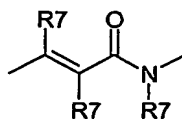
81. A compound according to any of claims 62-80, wherein A is selected from the group consisting of:

10



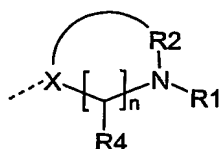
wherein R7 and Y are as defined in claim 1.

82. A compound according to claim 62, wherein A has the structure



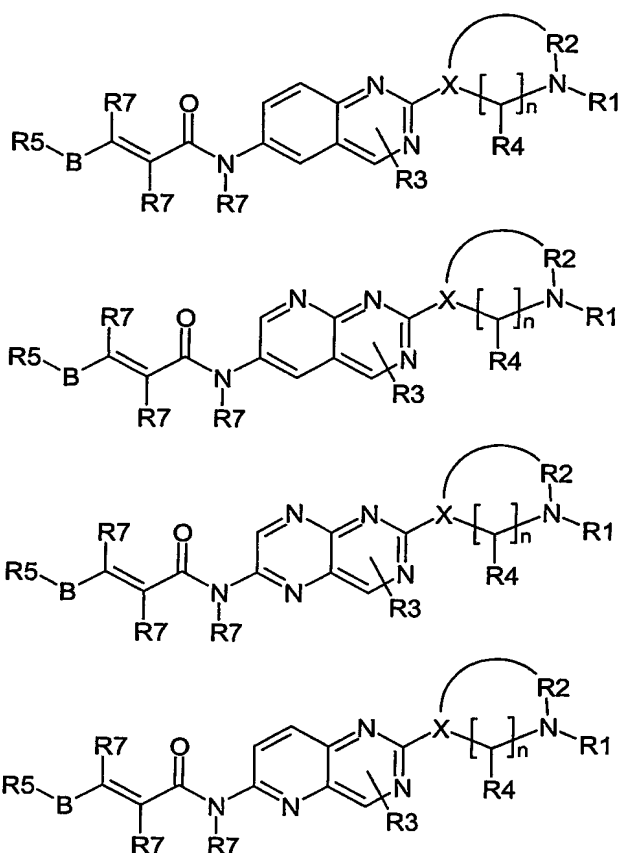
15

and the nitrogen-containing chain has the structure:



wherein R1, R2, R4, R7, X and n are as defined in claim 1.

- 5 83. A compound according to claim 82, wherein the compound has one of the following structures:

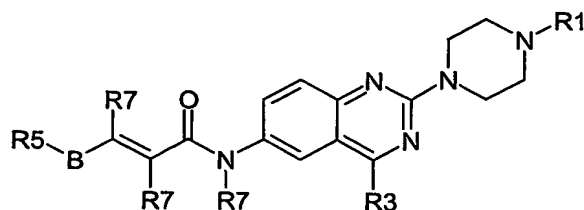


10

wherein X, B, R1, R2, R3, R4, R5, R7 and n are as defined in claim 1.

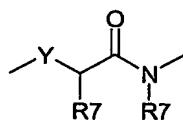
- 15 84. A compound according to claim 83, wherein the compound has the following structure:

205

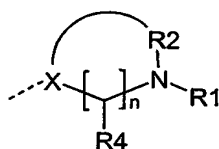


wherein B, R1, R2, R3, R4, R5 and R7 are as defined in claim 1.

- 5 85. A compound according to claim 62, wherein A has the structure

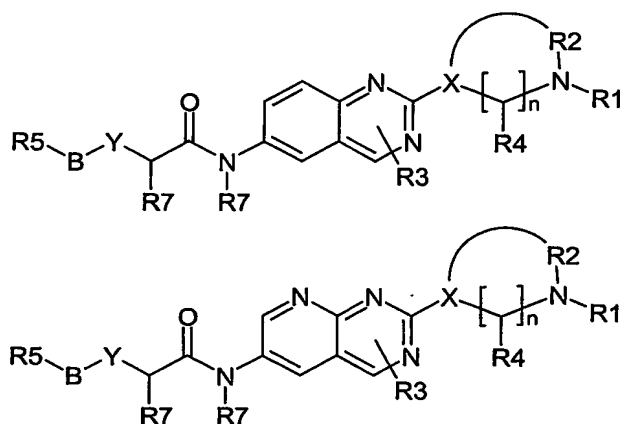


and the nitrogen-containing chain has the structure:

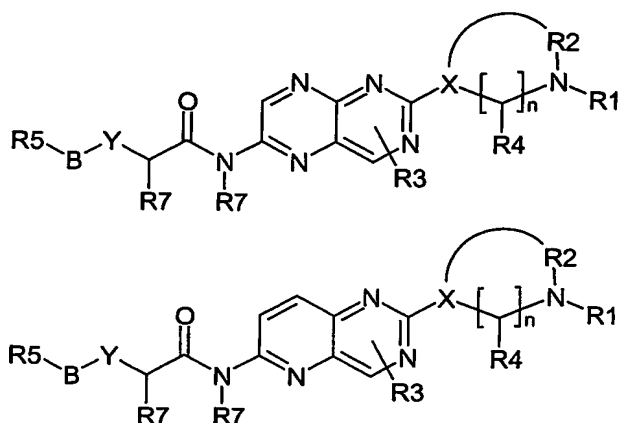


- 10 wherein R1, R2, R4, R7, Y, X and n are as defined in claim 1.

86. A compound according to claim 85 wherein the compound has one of the following structures:



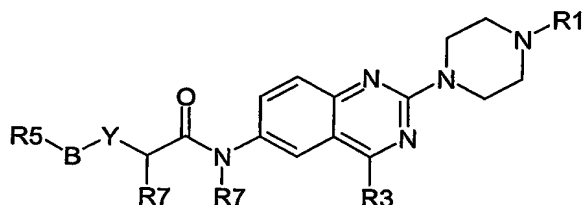
206



wherein B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

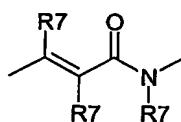
5

87. A compound according to claim 86, wherein the compound has the following structure:



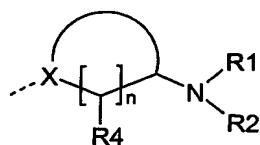
10 wherein B, R1, R2, R3, R4, R5, Y and R7 are as defined in claim 1.

88. A compound according to claim 62 wherein A has the structure:



and the nitrogen-containing chain has the structure:

15

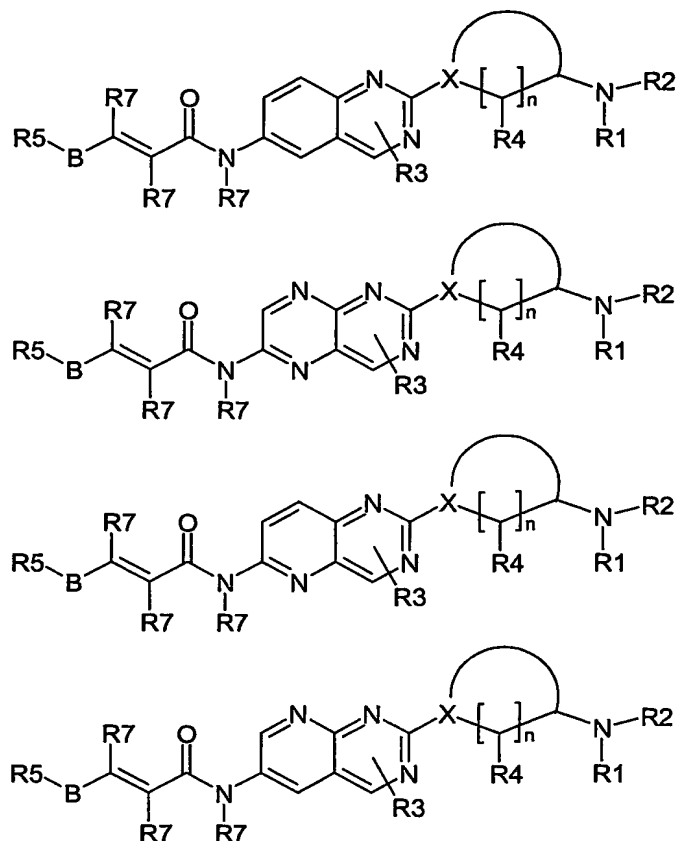


wherein X, n, R1, R2, R4, Y and R7 are as defined in claim 1.

89. A compound according to claim 88, wherein the compound has one of the following structures:

20

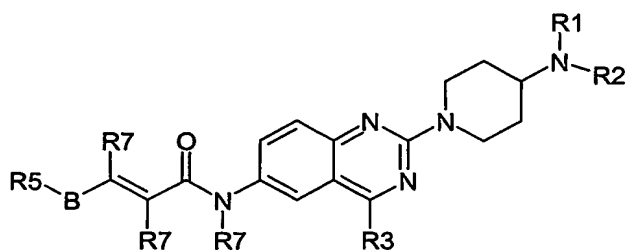
207



5

wherein X, B, R1, R2, R3, R4, R5, R7 and n are as defined in claim 1.

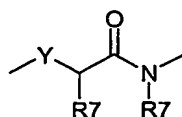
90. A compound according to claim 89, wherein the compound has the following structure:



10

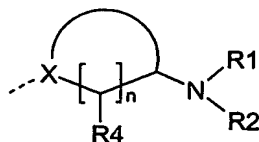
wherein B, R1, R2, R3, R4, R5 and R7 are as defined in claim 1.

91. A compound according to claim 62, wherein A has the structure:



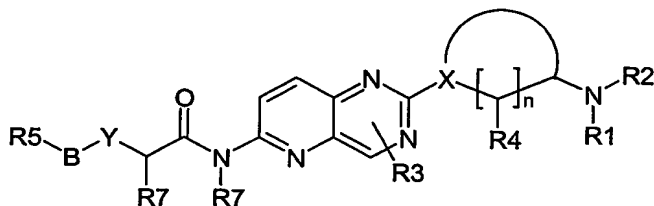
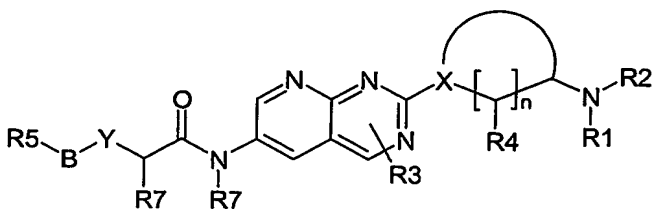
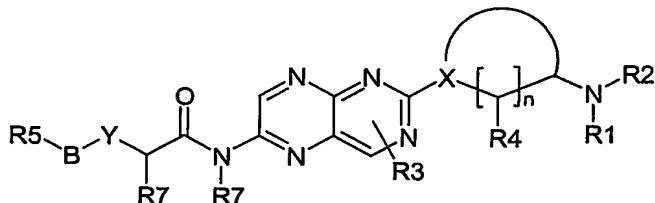
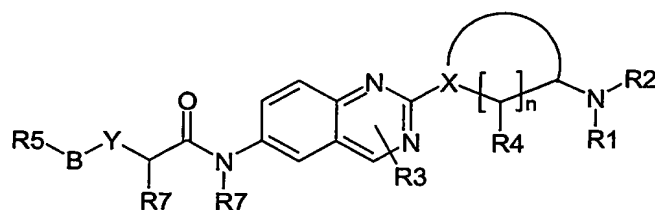
15

and the nitrogen-containing chain has the structure:



wherein X, Y, R1, R2, R4 and R7 are as defined in claim 1.

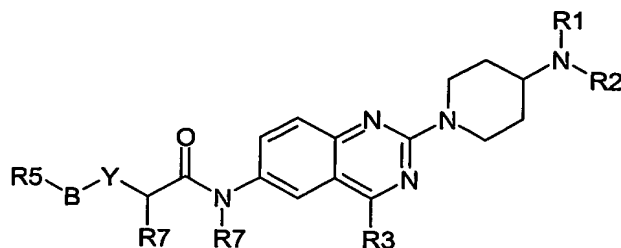
- 5 92. A compound according to claim 90, wherein the compound has one of the following structures:



10

wherein B, R1, R2, R3, R4, R5, R7, Y, X and n are as defined in claim 1.

- 15 93. A compound according to claim 92, wherein the compound has the following structure:



wherein B, R1, R2, R3, R4, R5, R7 and Y are as defined in claim 1.

- 5 94. A compound according to any of claims 62-93, wherein X is N.
95. A compound according to any of claims 62-94, wherein R3 is methyl.
96. A compound according to any of claims 62-95, wherein R7 is hydrogen.
- 10 97. A compound according to any of claims 62-96, wherein R4 is hydrogen
98. A compound according to any of claims 62-97, wherein R1 is hydrogen or a lower straight, branched or cyclic alkyl group with 1-6 carbon atoms such as, e.g., methyl, ethyl, propyl, butyl, isopropyl, isobutyl, cyclopentyl, which may be substituted with OH.
- 15 99. A compound according to claim 98, wherein R1 is hydrogen, methyl, ethyl, propyl, iso-propyl, butyl, iso-butyl, sec-butyl, tert-butyl or 2-hydroxyethyl.
- 20 100. A compound according to claim 99, wherein R1 is methyl, ethyl or 2-hydroxyethyl.
101. A compound according to any of claims 62-100, wherein Y is oxygen.
102. A compound according to any of claims 62-101, wherein B is phenyl or pyridine.
- 25 103. A compound according to any of claims 62-102, wherein R5 is halogen atoms, alkyl or alkenyl groups, cycloalkyl groups with 3-7 carbons, heterocyclyl groups, alkylcycloalkyl groups, alkoxy groups (AlkO-), alkylamino groups (AlkNH-), dialkylamino groups (Alk₂N-), -CONHAlk, -CONAlk₂, -NHCO-Alk, -CO-Alk, -N(CF₃)₂, -SCH₃, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as -CH₂CF₃, -CF₂CF₃, -CF₃, -OCF₃, -SCF₃
- 30

104. A compound according to claim 103, wherein R5 is halogen atoms, alkyl groups, -SCH₃, partially or fully fluorinated alkyl, alkoxy or thioalkoxy groups such as -CH₂CF₃, -CF₂CF₃, -CF₃, -OCF₃, -SCF₃.

5 105. A compound according to any of claims 62-104, which is in amorphous or crystalline form.

106. A compound according to any of claims 62-105, which is in racemic or enantiomeric form.

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107. A compound according to any of claims 62-106, which is in the form of a physiologically acceptable salt, complex, solvate or prodrug thereof.

108. A compound according to any of claims 62-106 for use in medicine.

15

109. A compound according to any of claims 62-108 for preventing or treating diseases caused by or involving a melanin-concentrating hormone.

110. A compound according to any of claims 62-109 for modulating the activity of a MCH receptor.

20

111. A compound according to any of claims 62-110 that has antagonistic activity against a MCH receptor.

25 112. A compound according to any of claims 62-110 that exhibits agonistic, inverse agonistic or allosteric activity against a MCH receptor.

113. A compound according to any of claims 62-112, wherein the MCH receptor has at least about 80% such as, e.g. at least about 85% or at least about 90% homology to the amino acid sequence CTLITAMDAN or CTIITSLDTC

30

114. A compound according to any of claims 62-112, wherein the MCH receptor comprises the amino acid sequence CTLITAMDAN or CTIITSLDTC.

35 115. A compound according to any of claims 62-112, wherein the MCH receptor is a MCH1 or MCH2 receptor.

116. A compound according to any of claims 62-115, wherein the MCH receptor is a MCH1 receptor.

- 5 117. A compound according to any of claims 62-106, wherein the MCH receptor is a mammalian receptor such as human receptor.

118. Use of a compound according to any of claims 62-117 for the preparation of a composition for preventing or treating feeding disorders.

10

119. Use of a compound according to any of claims 62-110 or 112-118 for the preparation of a composition for reducing body mass.

15

120. Use of a compound according to any of claims 62-110 or 112-119 for the preparation of a composition for preventing or treating Syndrome X (metabolic syndrome), or any combination of obesity, insulin resistance, dyslipidemia, impaired glucose tolerance and hypertension.

20

121. Use of a compound according to any of claims 62-110 or 112-120 for the preparation of a composition for preventing or treating Type II diabetes or Non Insulin Dependent Diabetes Mellitus (NIDDM).

25

122. Use of a compound according to any of claims 62-110 or 112-121 for the preparation of a composition for preventing or treating bulimia, obesity and/or bulimia nervosa.

123. A compound according to any of claims 62-122, for the preparation of a composition which is an antidepressant and/or anti-anxiety agent.

30

124. A cosmetic method for reducing overweight and/or for treating of and/or preventing overweight, bulimia, bulimia nervosa, obesity and/or complications thereto, the method comprising administering to an animal such as, e.g. a human in need thereof, an effective amount of a compound defined in any of claims 1-48, 50-110 or 111-122.

35

125. A method for the treatment and/or prophylaxis of diseases caused by a melanin-concentrating hormone, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-46 or 62-107.

5 126. A method for the treatment and/or prophylaxis of diseases caused by feeding disorders, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-46 or 62-107.

10 127. A method for modifying the feeding behaviour of a mammal, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-46 or 62-107.

15 128. A method for the reduction of body mass, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-48, 50-110 or 111-122.

20 129. A method for the treatment and/or prophylaxis of Syndrome X (metabolic syndrome) or any combination of obesity, insulin resistance, dyslipidemia, impaired glucose tolerance and hypertension, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-48, 50-110 or 111-122.

25 130. A method for the treatment and/or prophylaxis of Type II diabetes or Non Insulin Dependent Diabetes Mellitus (NIDDM), the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-48, 50-110 or 111-122.

30 131. A method for the treatment and/or prophylaxis of bulimia, bulimia nervosa and/or obesity, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-48, 50-110 or 111-122.

35 132. A method for the treatment and/or prophylaxis of depression and/or anxiety, the method comprising administering to a mammal in need thereof an efficient amount of a compound defined in any of claims 1-46 or 62-107.

133. A pharmaceutical composition comprising a compound as defined in any of claims 1-46 or 62-107, together with one or more physiologically acceptable excipients.

134. A pharmaceutical composition according to claim 133, wherein the compound is present in the form of a physiologically acceptable salt such as a salt formed between the compound and an inorganic acid such as e.g., a hydrochloride, a hydrobromide, a hydroiodide, a nitrate, a nitrite, a H_3PO_3 salt, a H_3PO_4 salt, a H_2SO_3 salt, a sulfate, a H_2SO_5 salt, or a salt formed between the compound and an organic acid such as organic acids like e.g. H_2CO_3 , acetic acid, $\text{C}_2\text{H}_5\text{COOH}$, $\text{C}_3\text{H}_7\text{COOH}$, $\text{C}_4\text{H}_9\text{COOH}$, longer saturated or unsaturated fatty acids, $(\text{COOH})_2$, $\text{CH}_2(\text{COOH})_2$, $\text{C}_2\text{H}_4(\text{COOH})_2$, $\text{C}_3\text{H}_6(\text{COOH})_2$, $\text{C}_4\text{H}_8(\text{COOH})_2$, $\text{C}_5\text{H}_{10}(\text{COOH})_2$, fumaric acid, maleic acid, malic acid, lactic acid, citric acid, tartaric acid, ascorbic acid, benzoic acid, salicylic acid, phthalic acid, palmoic acid, trifluoroacetic acid, p-toluenesulfonic acid, methanesulfonic acid.

135. A pharmaceutical composition according to claim 133 or 134 for enteral and/or parenteral use.

136. A pharmaceutical composition according to claim 133 or 134 for oral, buccal, rectal, nasal, topical, vaginal or ocular use.

137. A pharmaceutical composition according to any of claims 133-136 in the form of a solid, semi-solid or fluid composition.

138. A pharmaceutical composition according to claim 137 in solid form, wherein the composition is in the form of tablets such as, e.g. conventional tablets, effervescent tablets, coated tablets, melt tablets or sublingual tablets, pellets, powders, granules, or particulate material.

139. A pharmaceutical composition according to claim 137 in semi-solid form, wherein the composition is in the form of a chewing gum, an ointment, a cream, a liniment, a paste, a gel or a hydrogel.

140. A pharmaceutical composition according to claim 137 in fluid form, wherein the composition is in the form of a solution, an emulsion, a suspension, a dispersion, a liposomal composition, a spray, a mixture, or a syrup.

141. A pharmaceutical composition according to any of claims 133-140 comprising a therapeutically effective amount of a compound according to claims 1-46 or 62-107.

- 5 142. A pharmaceutical composition according to claim 141, wherein the amount is from about 0.001 mg to about 1 g such as, e.g. from about 0.005 to about 750 mg, from about 0.01 to about 500 mg, from about 0.05 to about 500 mg, from about 0.1 to about 250 mg, from about 0.1 to about 100 mg or from about 0.5 to about 50 mg.